

ABSTRACT OF THE DISCLOSURE

A method of fabricating a photocrystalline plastic optical fiber comprises, for fabricating the cladding, a step of forming a flow by simultaneously injecting a liquid first composition that is a precursor of the cladding polymer and curable by ultraviolet radiation into a first series of holes in an injection plate, and a second composition that is unreactive to the ultraviolet radiation and is selected from a liquid composition and a gas composition into a second series of holes in the plate. The second series of holes have a substantially periodic distribution and each of the holes of the second series has as its closest neighbors holes of the first series. The method further includes a step of irradiating the flow with ultraviolet radiation to form the photocrystalline plastic optical fiber.